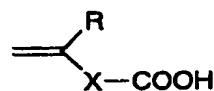


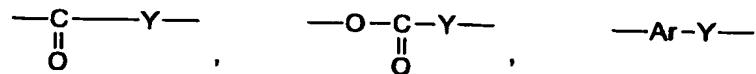
WHAT IS CLAIMED IS:

1. An infrared-sensitive lithographic printing plate comprising a support and a heat-sensitive layer, whrerein the heat-sensitive layer comprises: (A) a copolymer having a monomer unit represented by the following formula (I); (B) an alkali-soluble high molecular weight compound having a sulfonamide group; and (C) a light-heat conversion material:

Formula (I):



wherein R represents a hydrogen atom or an alkyl group; X represents an arylene group which may have a substituent, or any of the following structures:



wherein Ar represents an arylene group which may have a substituent; Y represents a divalent connecting group.

2. The infrared-sensitive lithographic printing plate according to claim 1, wherein the copolymer (A) comprises the monomer unit represented by formula (I) in an amount of 1 to

90 mol%

3. The infrared-sensitive lithographic printing plate according to claim 1, wherein the copolymer (A) further has at least one monomer unit of (meth)acrylic acid esters, (meth)acrylamide derivatives and styrene derivatives.

4. The infrared-sensitive lithographic printing plate according to claim 1, wherein the copolymer (A) further has at least one monomer unit of (meth)acrylic acid esters, (meth)acrylamide derivatives and styrene derivatives in an amount of 5 to 90 mol%.

5. The infrared-sensitive lithographic printing plate according to claim 1, wherein the heat-sensitive layer comprises the copolymer (A) in an amount of 1 wt% to 40 wt%.

6. The infrared-sensitive lithographic printing plate according to claim 1, wherein the alkali-soluble high molecular weight compound (B) has at least one monomer unit of low molecular weight compounds each having in one molecule, at least one sulfonamide group $-\text{NH}-\text{SO}_2-$ and at least one polymerizable unsaturated bond.

7. The infrared-sensitive lithographic printing plate

according to claim 1, wherein the heat-sensitive layer further comprises novolak resin.

8. The infrared-sensitive lithographic printing plate according to claim 1, wherein the light-heat conversion material is an infrared absorbing dye.

9. The infrared-sensitive lithographic printing plate according to claim 8, wherein the infrared absorbing dye has an absorbance at 700 to 1200 nm infrared rays.

10. The infrared-sensitive lithographic printing plate according to claim 1, wherein the heat-sensitive layer comprises the light-heat conversion material in an amount of 0.01 to 50 wt%.